

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Forest Pest Management
Box 5895, Asheville, N. C. 28803

REPLY TO: 5200 (5230)

February 25, 1975

SUBJECT: Cape Romain National Wildlife Refuge



TO: Mr. George R. Garris, Refuge Manager
Cape Romain National Wildlife Refuge
Moore's Landing
Route 1, Box 191
Awendaw SC 29429

A southern pine beetle, *Dendroctonus frontalis* Zimm., infestation on the Cape Romain National Wildlife Refuge was examined on February 13, 1975, by Tom Flavell, Entomologist, USFS Forest Pest Management Group, accompanied by Mike Remion, Entomologist, South Carolina State Commission of Forestry. The purpose of this examination was to make a preliminary evaluation of the current status of the southern pine beetle infestation on Bull's Island and to make some assessments on its potential impact on the remaining pine resource.

The Cape Romain National Wildlife Refuge has approximately 1,500 acres of loblolly pine, *Pinus taeda* L., on Bull's Island. The vast majority of the pines are large overmature trees and thus are highly susceptible to insect and disease damage. Southern pine beetle activity was first noticed on Bull's Island in the spring of 1974. The infestation spread quickly and by fall had covered about 40 acres of host type. Trees on roughly half of this acreage are still infested with larvae and pupae of the beetle. Many of the currently infested trees have been attacked high on the bole and are still green. Because of this, it will be impossible to determine the exact extent of the infestation until the foliage on these green infested trees starts to fade. This should occur in early spring.

With the large number of overmature pines and the presence of a healthy southern pine beetle population it is my opinion that a sharp increase in pine mortality should be expected during the 1975 growing season. Judging from the experience of similar island situations, it would appear realistic to expect the almost complete loss of pines on the Island within the next two years, unless suppressive action is taken. This, of course, is predicated on the assumption that conditions will remain favorable to the beetle.

The success of southern pine beetle control is dependent on the quick discovery and removal, and/or destruction, of infested trees.

In an island situation where the inward migration of beetles may be expected to be minimal, an aggressive control program should bring about a significant reduction in the rate of spread. Catastrophic losses should, therefore, be avoidable in the near term with the long term objective being to minimize tree mortality until conditions once again become unfavorable for beetle development.

Three techniques are recognized for southern pine beetle control:

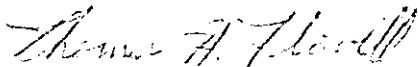
1. Salvage infested trees
2. Cut and spray infested trees with lindane or ethelene dibromide
3. Cut and burn infested trees

All of these methods are most effective in the winter months when the beetles are relatively inactive. Once warm weather arrives it becomes increasingly difficult to keep up with an expanding beetle population.

I realize that the pine type on Bull's Island is being managed as a natural area where nature is allowed to take its course and point out the above only for your information. In the event that the loss of the pine type within the time frame mentioned is unacceptable, we would be happy to work with you in any control effort.

Please don't hesitate to call on us if we can be of any further assistance.

Sincerely yours,



THOMAS H. FLAVELL
Supervisory Entomologist

For: JOHN H. THOMPSON
Field Office Supervisor